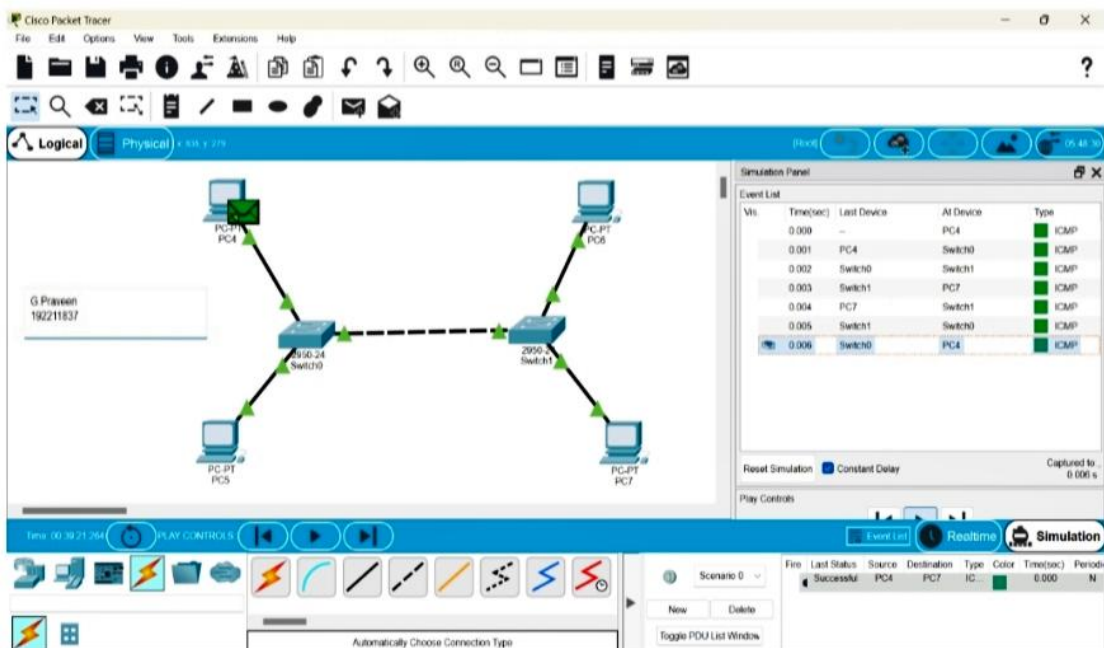
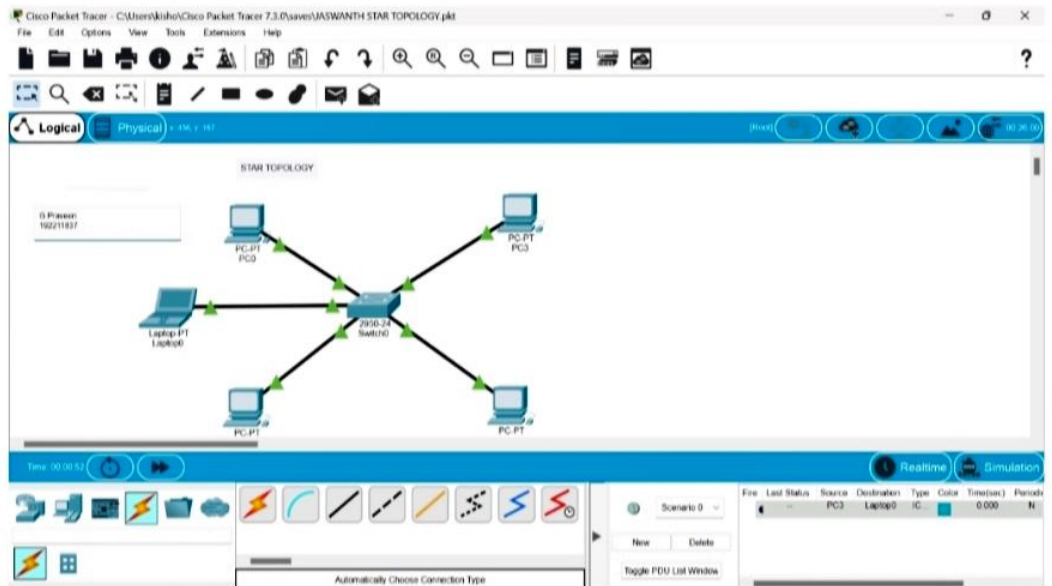


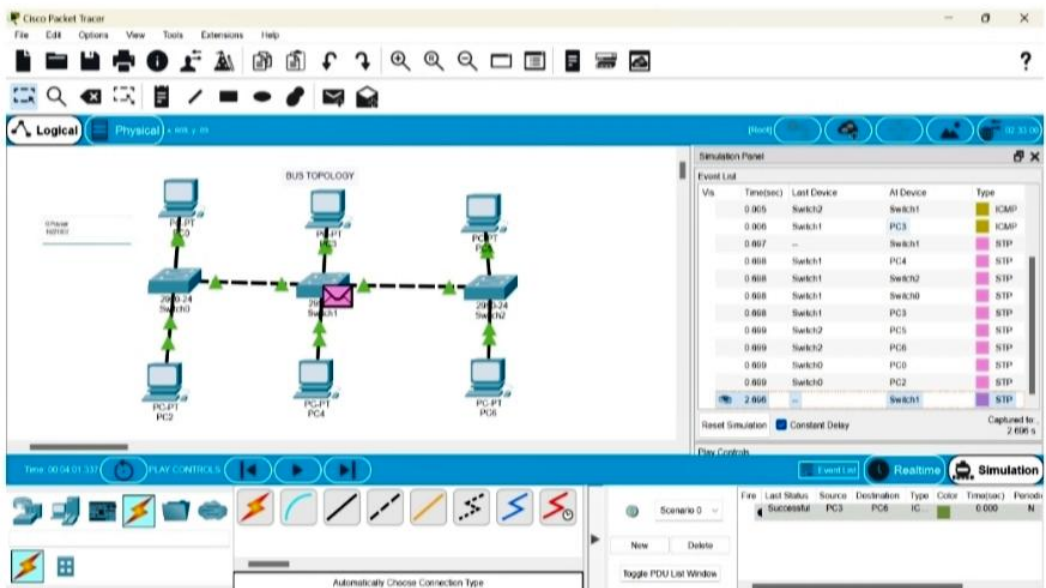
## 1) Hub, switch



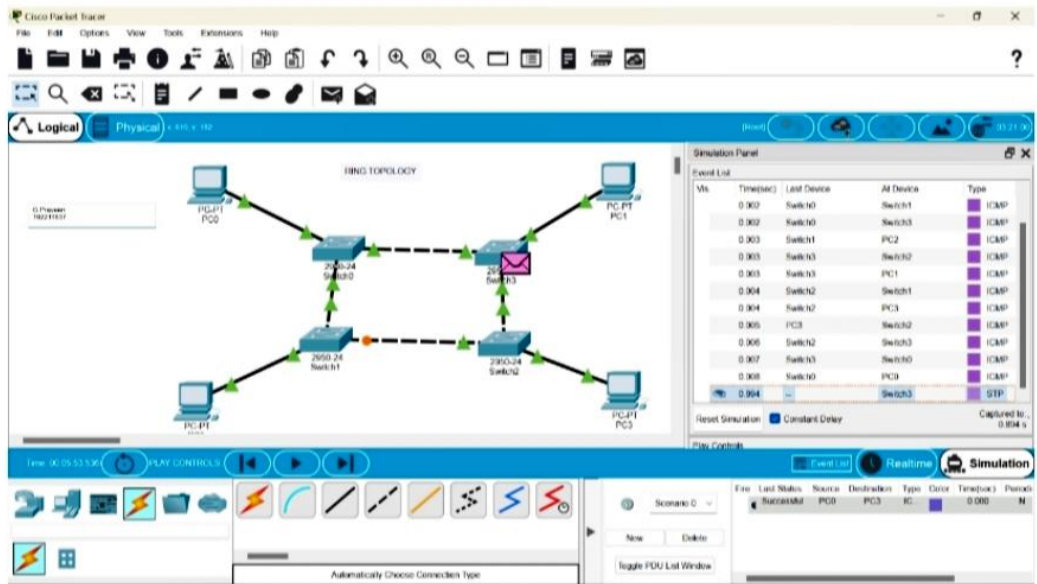
## 2)Star Topology



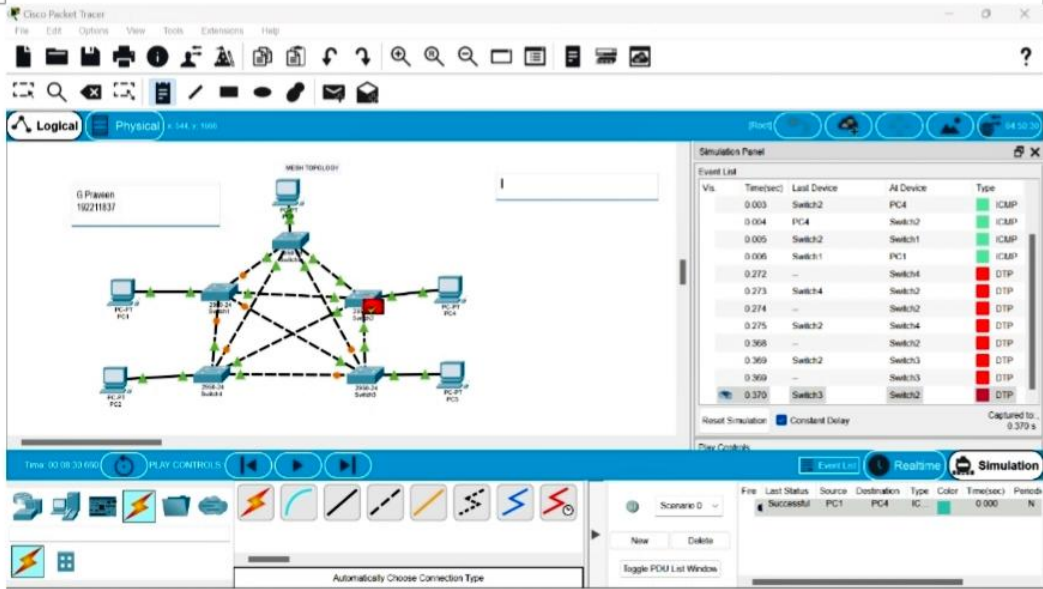
## 3)Bus topology



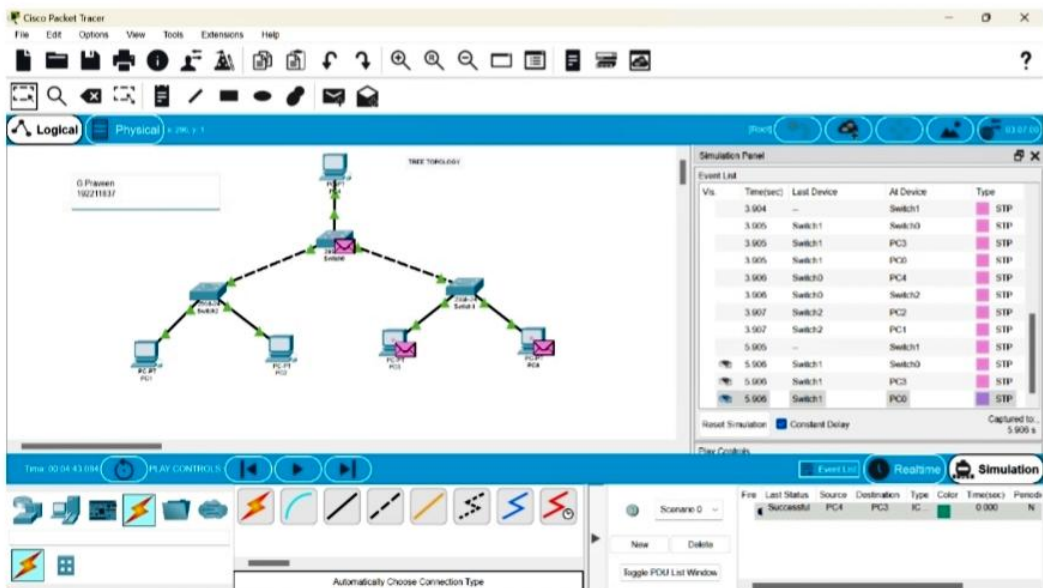
#### 4) Ring Topology



#### 5) Mesh topology



## 6) Tree topology



## 7) Hybrid topology

Cisco Packet Tracer  
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Logical Physical 5/10 v. 1/10

Simulation Panel

Ms	Time(sec)	Last Device	All Device	Type
0.004	Switch6	PC3	ICMP	ICMP
0.005	PC3	Switch6	ICMP	ICMP
0.008	Switch6	Switch2	ICMP	ICMP
0.007	Switch2	Switch1	ICMP	ICMP
0.008	Switch1	PC1	ICMP	ICMP
1.838	---	Switch3	STP	STP
1.839	Switch3	Switch4	STP	STP
1.839	Switch3	PC2	STP	STP
1.839	Switch3	Switch2	STP	STP
1.840	Switch2	Switch6	STP	STP
1.840	Switch2	Switch5	STP	STP
1.840	Switch2	Switch1	STP	STP

Reset Simulation Constant Delay Capturing...

Play Controls

Scenario 0

From: Last Status Source Destination Type Color Time(sec) Periods

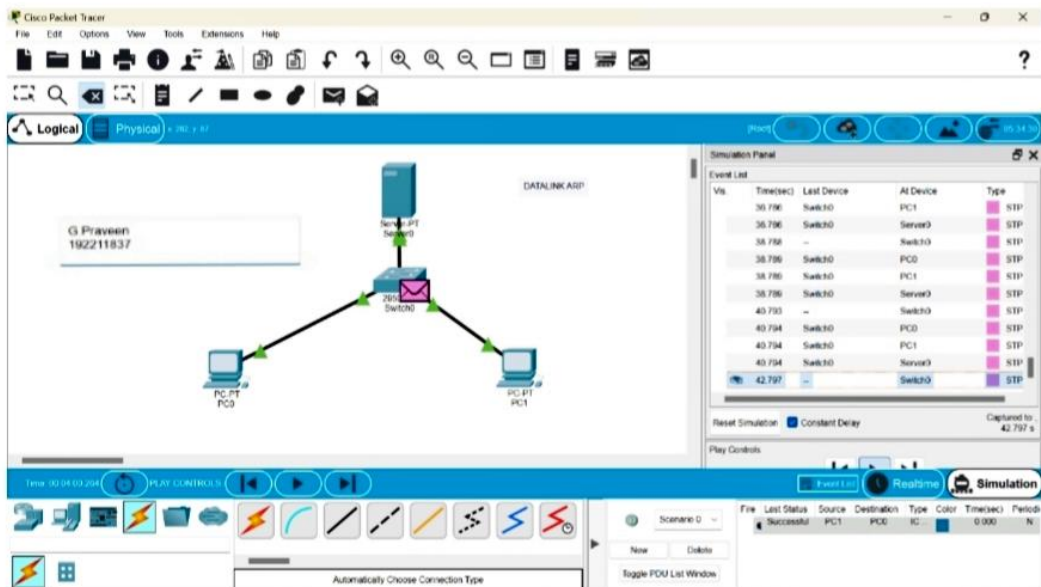
Successful	PC4	PC3	IC	6.690	N
------------	-----	-----	----	-------	---

New Delete

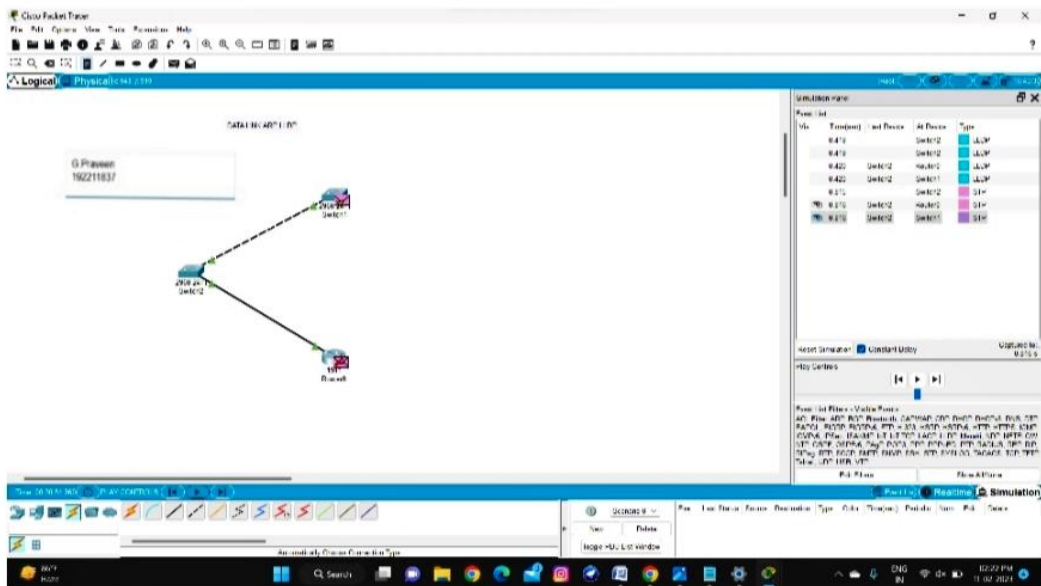
Toggle PDU List Window

Automatically Choose Connection Type

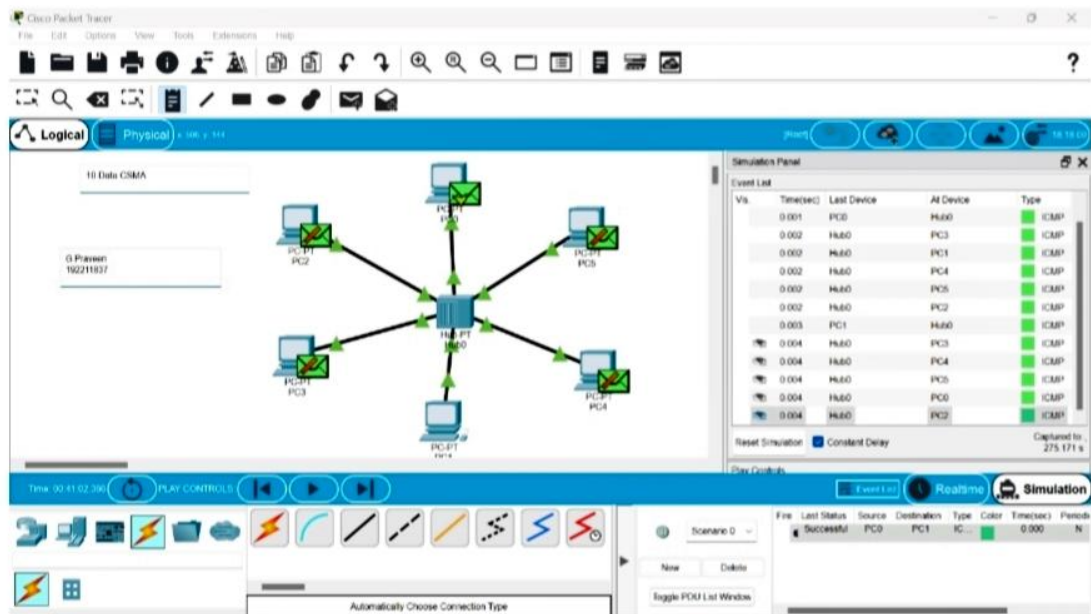
## 8)Data link arp



## 9)DATA LINK ARP



## 10)Data link CSMA



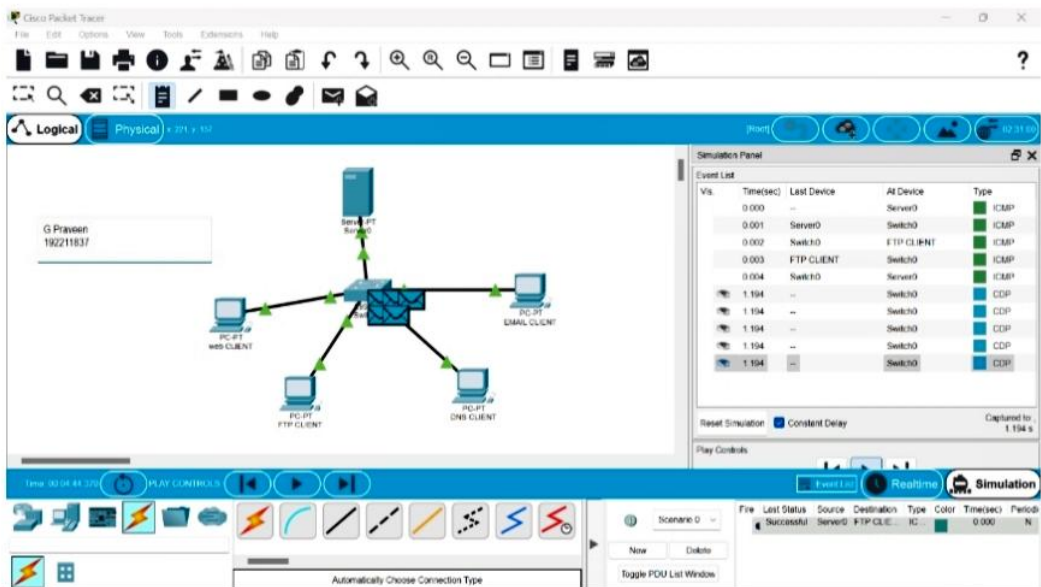
## 12)STATIC ROUTING







## 14)TCP



## 15)FUNCTIONALITIES OF UDP



## 17)IMPLEMENTATION OF SERVER-CLIENT TCP

**IMPLEMENTATION OF CLIENT SERVER TCP**

Network Diagram: A Server (PT) is connected to a Switch, which is connected to five PCs (PC1-PC5). The Server is labeled "G Praveen 192211837".

**Event List**

Time(sec)	Last Device	At Device
0.001	Server0	Switch0
0.002	Switch0	PC3
0.002	Switch0	PC0
0.002	Switch0	PC1
0.002	Switch0	PC2
0.003	PC0	Switch0
0.004	Switch0	Server0

Simulation Panel: Successful Server0 PC0 TC 0.000 N

## 18)IMPLEMENTATION OF SERVER-CLIENT UDP

**IMPLEMENTATION OF CLIENT SERVER UDP**

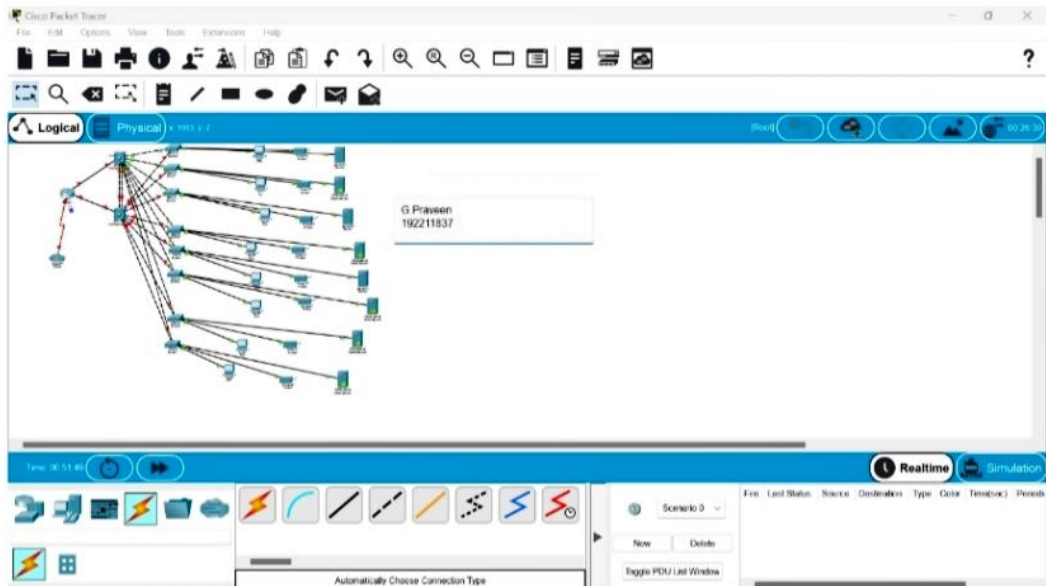
Network Diagram: A Server (PT) is connected to a Switch, which is connected to five PCs (PC1-PC5). The Server is labeled "G Praveen 192211837".

**Event List**

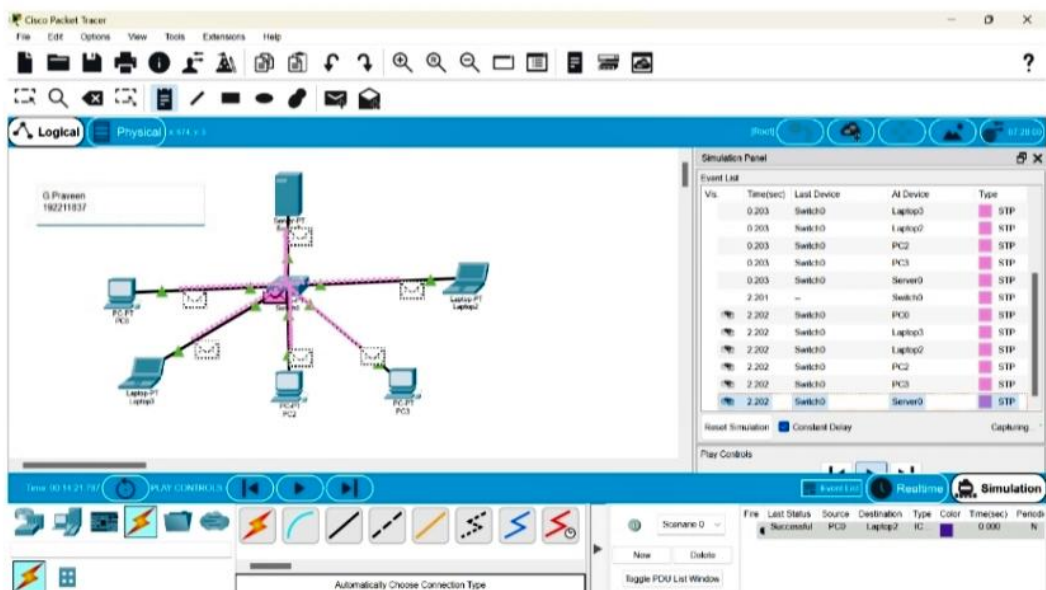
Time(sec)	Last Device	At Device
0.001	Server0	Switch0
0.002	Switch0	PC3
0.002	Switch0	PC0
0.002	Switch0	PC1
0.002	Switch0	PC2
0.003	PC0	Switch0
0.004	Switch0	Server0

Simulation Panel: Successful Server0 PC0 UC 0.000 N

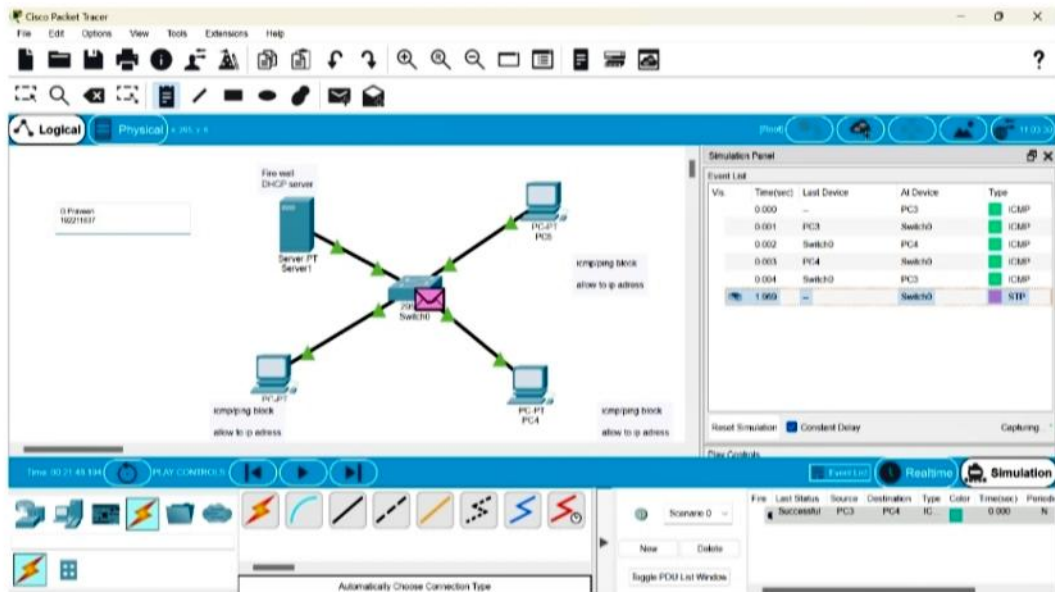
## 19)SIMULATING X,Y,Z COMPANY NETWORK DESIGN



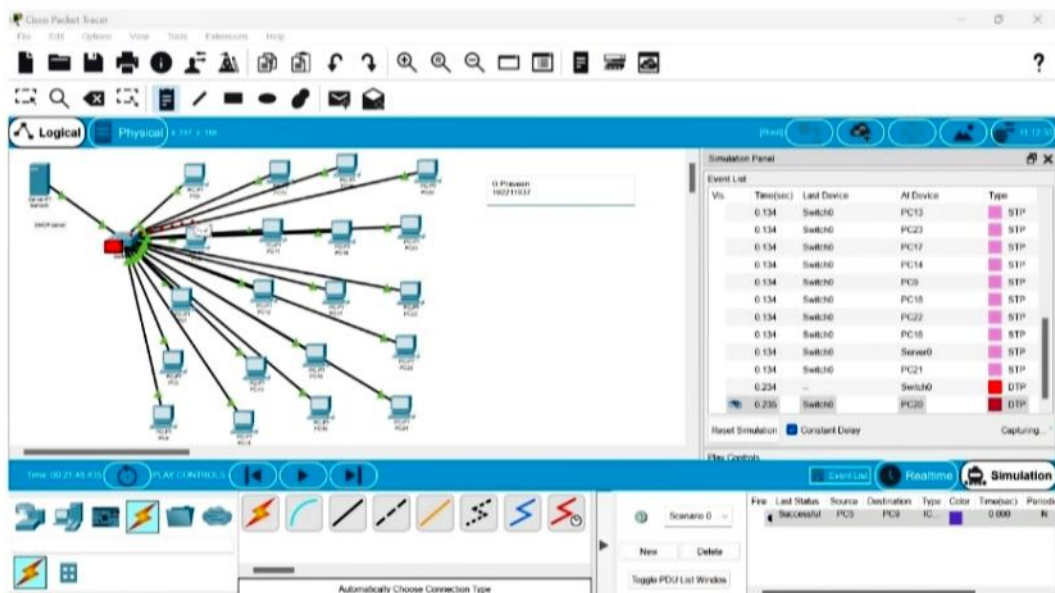
## 20)HDCP



## 21) FIREWALL



## 22) COMPUTER LAB



## 23) TCP WIRE SHARK

Wi-Fi

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tcp

No.	Time	Source	Destination	Protocol	Length	Info
111	16.896744	192.168.35.253	20.62.190.186	TLSv1.2	341	Application Data
112	16.896847	192.168.35.253	20.62.190.186	TLSv1.2	332	Application Data
113	16.896903	192.168.35.253	20.62.190.186	TLSv1.2	92	Application Data
114	17.833998	40.126.17.131	192.168.35.253	TCP	66	443 → 59781 [SYN, ACK] Seq=0 Ack=2 Win=65535 Len=0 MSS=1300 KS=256 SACK_PERM=1
115	17.834178	192.168.35.253	40.126.17.131	TCP	54	59781 → 443 [ACK] Seq=1 Ack=1 Win=65535 Len=0
116	17.936124	192.168.35.253	40.126.17.131	TLSv1	342	Client Hello
117	18.022049	192.168.35.253	40.126.17.131	TCP	72	59781 → 443 [ACK] Seq=1 Ack=1 Win=65535 Len=0 MSS=1300 KS=256 SACK_PERM=1
118	19.886114	20.168.119.145	192.168.35.253	tcp	66	443 → 43434 [FIN, RST] Seq=0 Ack=0 Win=0 Len=0 MSS=1300 KS=256 SACK_PERM=1

Frame 111: 341 bytes on wire (1128 bits), 341 bytes captured (1128 bits) on interface \Device\NPF\_{C822157A-F031-487F-9A73-A22E3912E560}, id 0

Ethernet II, Src: AtherosCom71ac:83 (6:8f:24:c7:ac:83), Dst: de:b1:fs:bi:81:05 (de:b1:fs:bi:81:05)

Internet Protocol Version 4, Src: 192.168.35.253, Dst: 20.62.190.186

Transmission Control Protocol, Src Port: 59781, Dst Port: 443, Seq: 159, Ack: 121, Len: 87

Transport Layer Security

```

0000  de b4 fs bi 81 05 34 6f 24 c7 ac 83 00 00 00 45 00  ....de $.....E:
0010  00 3c df 7f 00 00 00 11 92 05 c0 a8 23 fd c0 a8  ....<.....F:
0020  00 00 01 76 a8 47 58 42 c7 b4 ba 30 98 5c 8c df  ....3 GOM...6 A:
0030  17 60 bb 19 9a 52 6a 98 d7 b6 95 59 95 fd 79 02  ....Rm...Y:y:
0040  02 b1 3c b4 c4 2d 84 88 f4 87 ac e0 00 94 4d af  ....1c...:
0050  0f 7a 69 47 45 1a 4d c4 c2 00 ca 86 da 07 8c f5  ....R.....:
0060  55 65 6d 7e 51 d7 09 f1 ff fa 00 4b d1  ....Ue~Q T...K:

```

## 26)UDP WIRESHARK

Wi-Fi

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udp

No.	Time	Source	Destination	Protocol	Length	Info
20	3.840210	192.168.35.253	192.168.35.255	BROWSER	243	Host Announcement (LAPTOP-130Q7BMS, Workstation, Server, NT Workstation)
99	14.756954	192.168.35.253	192.168.35.222	DNS	74	Standard query 0xbff8 A login.liv.com
103	15.760320	192.168.35.253	192.168.35.222	DNS	74	Standard query 0xbff8 A login.liv.com
106	16.764811	192.168.35.253	192.168.35.222	DNS	74	Standard query 0xbff8 A login.liv.com

Frame 103: 74 bytes on wire (592 bits), 74 bytes captured (592 bits) on interface \Device\NPF\_{C822157A-F031-487F-9A73-A22E3912E560}, id 0

Ethernet II, Src: AtherosCom71ac:83 (6:8f:24:c7:ac:83), Dst: de:b1:fs:bi:81:05 (de:b1:fs:bi:81:05)

Internet Protocol Version 4, Src: 192.168.35.253, Dst: 192.168.35.222

User Datagram Protocol, Src Port: 61430, Dst Port: 53

Domain Name System (query)

```

0000  de b4 fs bi 81 05 34 6f 24 c7 ac 83 00 00 00 45 00  ....de $.....E:
0010  00 3c df 7f 00 00 00 11 92 05 c0 a8 23 fd c0 a8  ....<.....F:
0020  23 de ef f6 00 35 00 28 c3 92 4f f6 01 00 00 01  ....#...$ E.....
0030  00 00 00 00 00 00 05 6c 6f 67 69 6e 04 6c 69 76  .......l login liv
0040  65 03 63 6f 6d 00 00 01 00 01  ....e.com.....

```



